

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

see form PCT/ISA/220

PCT

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION

See paragraph 2 below

International application No.
PCT/EP2004/013406

International filing date (day/month/year)
25.11.2004

Priority date (day/month/year)
28.11.2003

International Patent Classification (IPC) or both national classification and IPC
F23D14/22, F23D14/66

Applicant
TECHINT COMPAGNIA TECNICA INTERNAZIONALE S.P.A

1. This opinion contains indications relating to the following items:

- Box No. I Basis of the opinion
- Box No. II Priority
- Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- Box No. IV Lack of unity of invention
- Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- Box No. VI Certain documents cited
- Box No. VII Certain defects in the international application
- Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

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WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITYInternational application No.
PCT/EP2004/013406

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
 - This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
 - a sequence listing
 - table(s) related to the sequence listing
 - b. format of material:
 - in written format
 - in computer readable form
 - c. time of filing/furnishing:
 - contained in the international application as filed.
 - filed together with the international application in computer readable form.
 - furnished subsequently to this Authority for the purposes of search.
3. In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/EP2004/013406

**Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or
industrial applicability; citations and explanations supporting such statement**

1. Statement

| | | |
|-------------------------------|-------------|-----------------|
| Novelty (N) | Yes: Claims | 2-8,10-21,23-29 |
| | No: Claims | 1,9,22 |
| Inventive step (IS) | Yes: Claims | |
| | No: Claims | 2-8,10-21,23-29 |
| Industrial applicability (IA) | Yes: Claims | 1-29 |
| | No: Claims | |

2. Citations and explanations

see separate sheet

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

Concerning Point V:

1. The following documents (D) from the search report are referred to in this written opinion; the numbering will be adhered to in the rest of the procedure:

D1: US 6068468 A

D2: US 4475885 A

D3: US 5344307 A.

2. Document D1 discloses a gas burner comprising a main metal body 74, an inner combustible gas lance 58b, two outer combustible gas lances 58a, 58c, a single air adduction duct 80, a refractory unit 5 and a series of air injection nozzles 3a, 3b (see column 11, lines 23-43; column 14, lines 51-57; column 16, lines 4-33; Figures 1, 2, 7, 12A, 12B, 12C). Although not explicitly disclosed, the gas burner according to D1, like any other burner, is necessarily connected to a gas regulation system.

As non-distinctive characteristics of a particular intended use should be disregarded when determining the novelty (i.e. whether the combustion air is pre-heated or not), this known burner has therefore all the features of claim 1, the subject-matter of and the claim lacks novelty, and, accordingly, the claim does not meet the requirements of Article 33 (2) PCT.

3. The features specified in dependent claim 9 are also known from the same document D1. The claim is therefore not allowable (Article 33 (2) PCT).
4. The features specified in dependent claims 2, 3 and 8 cannot be considered as involving an inventive step, since they are used in the related burner disclosed by document D2 (see column 2, line 33-column 3, line 24; column 4, line 57-column 5, line 5; Figures 1-4). Therefore the subject-matter of these claims does not meet the requirements of Article 33 (3) PCT.
5. It is to be mentioned that the features specified in claim 1 are known also from document D3, which further discloses the features of dependent claim 22 (see column 6, line 11-column 7, line 51; Figures 3 and 4).
6. The remaining dependent claims relate solely to constructional features, which

insofar as not directly disclosed in the prior art quoted in the search report, form part of the normal consideration of the man skilled in the art, and therefore, the claims do not meet the requirements of Article 33 (3) PCT.

Concerning Point VIII:

7. Claim 1 lacks clarity as the claim does not only describe a gas burner *per se*, but also refers also to features of a regulation system, which is not part of the claimed burner. Moreover, the final part of the claim does not contain constructive features of the burner, being rather an explanation of the way the burner works.

Therefore, the claim does not meet the requirement of Article 6 PCT.

8. Also claim 6 lacks clarity: the claim, which is directly dependent from claim 2, refers to "the ignition device". However, this ignition device was not previously defined in claims 2 or 1.
9. According to the wording, claim 8 is dependent from claims 1 to 4. However, according to the dependency structure, claims 1 to 4 are not directly linked (claim 2 is dependent from claim 1, while both claims 3 and 4 are dependent from claim 2). Since the dependency of claim 8 is ambiguous, it is impossible to establish exactly which are the features of this claim. Claim 8 lacks therefore clarity and does not meet the requirement of Article 6 PCT.

The same type of objection (unclear dependency) is to be made also for claims 10, 11, 13, 15, 17, 24 and 28 as well.